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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,255	09/15/2003	William F. Courtney	12489US02	2407

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EXAMINER	
VUONG, QUOCHIEN B	
ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/662,255	COURTNEY ET AL.	
	Examiner	Art Unit	
	Quochien B. Vuong	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *50-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *50,52-54,56,57,59,60,62,63,65 and 67-69* is/are rejected.

7)☒ Claim(s) *51,55,58,61,64,66 and 70* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to applicant's response filed on 01/27/2006. Claims 50-70 are now pending in the present application. **This action is made final.**

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 01/17/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 50, 52-54, 56, 57, 59, 60, 62, 63, 65, and 67-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Schiff (US 6,317,420).

Regarding claim 50, Schiff discloses a communication system (figures 4,5, and 7) comprising: a satellite (116), a plurality of user terminals (124), each of the plurality of user terminals being operative to communicate with the satellite; a gateway (120) being

operative to communicate with the satellite (column 9, line 34 – column 10, line 36); and a controller operative to dynamically and asymmetrically assign uplink bandwidth between the plurality of user terminals and the gateway via a signaling channel, the signaling channel being transmitted from the controller to the plurality of user terminals and to the gateway via the satellite (column 11, line 14 – column 12, line 30).

As to claim 52, Schiff discloses wherein the controller is further operative to monitor communication traffic flow between the gateway and the plurality of user terminals, the controller dynamically assigning the uplink bandwidth based on an evaluation of the monitored communication traffic flow (column 12, lines 15-30).

As to claim 53, Schiff discloses wherein the controller assigns a plurality of uplinks to the plurality of user terminals and to the gateway for communication with the satellite, each of the plurality of uplinks having an associated bandwidth (column 12, lines 15-30).

As to claim 54, Schiff discloses wherein the controller assigns a portion of the plurality of uplinks to the plurality of user terminals and a remaining portion of the plurality of uplinks to the gateway based on a determination of an optimal allocation of the plurality of uplinks (column 12, lines 15-30).

Regarding claim 56, Schiff (figures 4, 5, and 7) discloses method for establishing communications with a satellite (116), the method comprising: monitoring communication traffic flow between a gateway (120) and a plurality of user terminals (124) (column 9, line 34 – column 10, line 36); determining an optimal allocation of uplink bandwidth between the gateway and the plurality of user terminals based on an

evaluation of the monitored communication traffic flow; assigning a first portion of the uplink bandwidth dynamically to the gateway; and assigning a second portion of the uplink bandwidth dynamically to the plurality of user terminals (column 11, line 14 – column 12, line 30).

As to claim 57, Schiff discloses transmitting a signaling channel to the plurality of user terminals and to the gateway via the satellite, the signaling channel comprising the assignment of the first and second portions of the uplink bandwidth (column 12, lines 15-30).

As to claim 59, Schiff discloses wherein the assigning the first and second portions of the uplink bandwidth comprises assigning a plurality of uplinks to the plurality of user terminals and to the gateway for communication with the satellite, each of the plurality of uplinks having an associated bandwidth (column 12, lines 15-30).

As to claim 60, Schiff discloses wherein the assigning the first and second portions of the uplink bandwidth comprises assigning a portion of the plurality of uplinks to the plurality of user terminals and assigning a remaining portion of the plurality of uplinks to the gateway based on the determined optimal allocation of the uplink bandwidth (column 12, lines 15-30).

Regarding claim 62, Schiff discloses a communication system (figures 4, 5, and 7) comprising: a satellite (113); a plurality of user terminals (124), each of the plurality of user terminals being operative to communicate with the satellite; a gateway (120) being operative to communicate with the satellite (column 9, line 34 – column 10, line 36); and a controller operative to dynamically assign a plurality of uplinks to the plurality of user

terminals and to the gateway for communication with the satellite, each of the plurality of uplinks having an associated bandwidth, such that a portion of the plurality of uplinks is assigned to the plurality of user terminals and a remaining portion of the plurality of uplinks is assigned to the gateway, the assignment being based on a determination of an optimal allocation of the plurality of uplinks (column 11, line 14 – column 12, line 30).

As to claim 63, Schiff discloses the controller being further operative to transmit the assignment of the plurality of uplinks via a signaling channel, the signaling channel being transmitted from the controller to the plurality of user terminals and to the gateway via the satellite (column 12, lines 15-30).

As to claim 65, Schiff discloses wherein the controller is further operative to monitor communication traffic flow between the gateway and the plurality of user terminals, the controller dynamically assigning the plurality of uplinks based on an evaluation of the monitored communication traffic flow (column 12, lines 15-30).

66. (New) The communication system of claim 62, wherein each of the plurality of uplinks comprises a plurality of sub-channels, such that a portion of the plurality of sub-channels of a given one of the plurality of uplinks is assigned to at least one of the plurality of user terminals and a remaining portion of the plurality of sub-channels is assigned to the gateway.

Regarding independent claim 67, Schiff (figures 4, 5, and 7) discloses a communication system comprising: means for determining an optimal allocation of uplink bandwidth between a gateway (120) and a plurality of user terminals (124) based on at least one of a ratio of outbound to inbound communication traffic, a utilization

efficiency of uplinks associated with the plurality of user terminals and the gateway, a utilization efficiency of downlinks associated with the plurality of user terminals and the gateway, a ratio of relative capacity of the uplinks associated with the plurality of user terminals and the gateway to the downlinks associated with the plurality of user terminals and the gateway, and a number of available uplinks and available downlinks (column 9, line 34 – column 10, line 36); and means for dynamically assigning a first portion of the uplink bandwidth to the gateway and for dynamically assigning a second portion of the uplink bandwidth to the plurality of user terminals for communicating with a satellite (column 11, line 14 – column 12, line 30).

As to claim 68, Schiff discloses means for communicating the assignment of the first portion of the uplink bandwidth and the second portion of the uplink bandwidth to the to the plurality of user terminals and to the gateway (column 12, lines 15-30).

As to claim 69, Schiff discloses means for determining an optimal allocation of a plurality of uplinks between the gateway and the plurality of user terminals, the means for dynamically assigning the uplink bandwidth assigning a portion of the plurality of uplinks to the plurality of user terminals and a remaining portion of the plurality of uplinks to the gateway based on the determination of the optimal allocation of the plurality of uplinks (column 12, lines 15-30).

Allowable Subject Matter

4. Claims 51, 55, 58, 61, 64, 66, and 70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 51, 58, and 64, Schiff discloses the communication system of claims 50, 56, and 62 above, respectively. However, Schiff and the cited prior art fail to further teach the communication system above wherein the controller dynamically assigns the uplink bandwidth based on a ratio of outbound to inbound communication traffic, a utilization efficiency of uplinks associated with the plurality of user terminals and the gateway, a utilization efficiency of downlinks associated with the plurality of user terminals and the gateway, a ratio of relative capacity of the uplinks associated with the plurality of user terminals and the gateway to the downlinks associated with the plurality of user terminals and the gateway, and a number of available uplinks and available downlinks.

Regarding claims 55, 61, 66, and 70, Schiff discloses the communication system of claims 53, 59, 62, and 69 above, respectively. However, Schiff and the cited prior art fail to further teach the communication system above wherein each of the plurality of uplinks comprises a plurality of sub-channels, such that a portion of the plurality of sub-channels of a given one of the plurality of uplinks is assigned to at least one of the plurality of user terminals and a remaining portion of the plurality of sub-channels is assigned to the gateway.

Response to Arguments

5. Applicant's arguments with respect to claims 50-70 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rothblatt (US 6,105,060) discloses system for providing global portable internet access using low earth orbit satellite and satellite direct radio broadcast system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QUOCHIEN B. VUONG
PRIMARY EXAMINER

Quochien B. Vuong
Apr. 15, 2006.